

Disinfectants and Sanitizers

Covered Products

This specification covers concentrated and ready-to-use hard surface disinfectant and sanitizer products including non-food-contact surface sanitizers.

Deleted: It does not cover hand cleaners, hand soaps, topical antiseptic drug products, food-contact sanitizers, or laundry sanitizers.

Definitions

International Agency for Research on Cancer (IARC) - is the specialized cancer agency of the World Health Organization dedicated to promoting international collaboration in cancer research.

National Toxicology Program (NTP) - is an interagency program established in 1978 to coordinate toxicology research and testing across the U.S. Department of Health and Human Services. The program was created to strengthen the science base in toxicology, develop and validate improved testing methods, and provide information about potentially toxic chemicals to health regulatory and research agencies, scientific and medical communities, and the public. It maintains an objective, science-based approach in dealing with critical issues in toxicology.

California Proposition 65 - known as the Safe Drinking Water and Toxic Enforcement Act of 1986, requires the State of California to publish a list of chemicals known to cause cancer or birth defects or other reproductive harm. The California Office of Environmental Health Hazard Assessment follows a rigorous scientific and open public process to evaluate available scientific information, and lists chemicals based on recommendations from State committees of scientists and health professionals, presence on an authoritative lists of chemicals of concern (e.g. IARC or NTP), identification by a state or federal agency as a carcinogen or teratogen, or satisfaction of certain criteria defined in the California Labor Code.

Deleted: Background

Public health professionals have begun to introduce the use of alternative disinfectants and sanitizers in specific arenas. In those cases where disinfection or sanitation is required, federal and state regulations continue to list the use of bleach as an acceptable or recommended option, but also recommend or allow for the use of alternative disinfectants or sanitizers registered with the U.S. Environmental Protection Agency (EPA) for specific uses. For example, the 2007 New York State Department of Health Advisory on the "Prevention and Control of MRSA" recommends either the use of an "EPA-registered hospital detergent/disinfectant . . . or a 1:100 solution of diluted bleach."

During development of the multi-state contract for Environmentally Preferable Cleaning Products, Programs, Equipment, and Supplies, awarded in March 2015, the sourcing team, led by the Massachusetts Operational Services Division, researched and compiled criteria for surface disinfectants and sanitizers in consultation with the Massachusetts Toxics Reduction Task Force and the Responsible Purchasing Network. These criteria may reduce the impact to public health and the environment while ensuring efficacy and high performance. It is the intent of this specification to encourage affected entities to adopt the use of effective alternatives that meet these criteria, such as hydrogen peroxide, in place of conventional disinfectants and sanitizers, such as chlorine bleach (sodium hypochlorite) and quaternary ammonium chloride compounds, which do not meet them.

Standard Setting and Certification Programs

Association of Occupational and Environmental Clinics (AOEC) - is a non-profit organization committed to improving the practice of occupational and environmental health through information sharing and collaborative research.

[Design for the Environment – is a program administered by the Environmental Protection Agency \(EPA\) that verifies that antimicrobial products have been registered with EPA as a pesticide and meet certain criteria to protect human health and the environment.](#)

Green Seal - is a non-profit, independent, third-party standard setting and certification organization that follows the Guiding Principles and Procedures for Type I Environmental Labeling adopted by the International Organization for Standardization (ISO 14024). Green Seal has developed environmental standards and certifies products for more than 40 major product categories.

UL EcoLogo - is an independent, third-party standard setting and certification program that follows the Guiding Principles and Procedures for North American Type I Environmental Labeling adopted by the International Organization for Standardization (ISO 14024). Since its establishment in 1988, EcoLogo has been recognized or referenced in more than 350 specifications and standards.

Specifications

Only Use Disinfectants or Sanitizers When Necessary

[It is recommended that affected entities prioritize green cleaning first, and only use disinfectants or sanitizers when necessary. Certain circumstances \(e.g. blood spills and infection control\) and locations \(e.g. healthcare, childcare, and food service settings\) may require special disinfectant or sanitation practices that are prescribed by existing laws, regulations or professional guidance. These specifications do not supersede or change existing health, labor, environmental, social services, or educational regulations or guidance related to disinfection and sanitation practices. For more information on best practices for green cleaning and examples of state and federal regulations and](#)

Deleted: Guidance¶

It is recommended that affected entities prioritize green cleaning first, and only use disinfectants or sanitizers when necessary. Certain circumstances (e.g. blood spills and infection control) and locations (e.g. healthcare, childcare, and food service settings) may require special disinfectant or sanitation practices that are prescribed by existing laws, regulations or professional guidance. These specifications do not supersede or change existing health, labor, environmental, social services, or educational regulations or guidance related to disinfection and sanitation practices. For more information on best practices for green cleaning and examples of state and federal regulations and guidance on disinfection and sanitation, see the New York State green cleaning website at <https://greencleaning.ny.gov/>.¶

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Purchasing Disinfectants and Sanitizers

Affected entities are encouraged to purchase disinfectants and sanitizers that meet the following specifications to the extent practicable, consistent with existing laws and professional guidance issued by the State Departments of Health, Labor, Environmental Conservation, and Education.

Deleted: This specification is intended to harmonize with specifications included in the multi-state purchasing contract for Environmentally Preferable Cleaning Products, Programs, Equipment and Supplies (also known as FAC85), but it does not create an obligation for affected entities to follow them.

Hard-Surface Disinfectants and Sanitizers

- [All affected entities shall, to the maximum extent practicable, purchase hard-surface disinfectants and sanitizers that meet the following criteria:](#) Registration by EPA pursuant to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as a hard surface disinfectant or non-food-contact surface sanitizer. Every pesticide product which is used, distributed, sold, or offered for sale in New York State must also be registered by the New York State Department of Environmental Conservation. Products requiring New York State registration include basic U.S. EPA registrations, supplemental (distributor) registrations and additional brand names.
- [Antimicrobial mold and mildew cleaners must be EPA-registered as a fungicide against *Aspergillus niger* or as a mildewstat.](#)
- Avoidance of active ingredients classified as known, suspected, reasonably anticipated, or probable human carcinogens per the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the State of California.
- Avoidance of active ingredients classified as chemicals known to cause birth defects or other reproductive harm per the State of California Proposition 65.
- [May not contain asthmagens per the Association of Occupational and Environmental Clinics \(AOEC\) List with a G \(Generally Accepted\), Rs \(Sensitizer\), Rr \(RADS\), or Rrs \(both\) designation, except for food-contact surface sanitizers that may contain a combination of peroxyacetic acid and hydrogen peroxide \(which is labeled as an asthagen by the AOEC\).](#)

Deleted: Products meeting the following criteria will meet the specification:

Deleted: Avoidance of active ingredients classified as asthmagens per the Association of Occupational and Environmental Clinics (AOEC) (listed with a G, Rs, Rrs or Rr designation).

- Avoidance of active ingredients in the chemical class of nonyl phenol ethoxylates or other alkyl phenol ethoxylates (APEs).

- Can only contain the following acceptable active ingredients:

- Caprylic Acid
- Citric Acid
- Dichloroisocyanurate (NaDCC: only food grade) with CAS #2893-78-9.
Must be able to maintain a pH from 4-6.5 and can only be sold in tab form.
- Ethanol
- Glycolic Acid
- Hydrogen Peroxide (including accelerated hydrogen peroxide)
- Hypochlorous Acid (in ready-to-use formulations only)
- Isopropanol
- L-Lactic Acid
- Sodium Chloride
- Thyme Oil (Thymol)
- Peroxyacetic Acid (approved for food contact surface and laundry products only)

- All concentrated disinfectants and sanitizers should be designed and packaged as a Closed Loop Dilution-Control System, that meets the following requirements unless the product is in a portion-controlled package:

- No open containers. The container must have "spill-resistant packaging" that requires coupling to a specially designed device in order to dispense the product.
- The container should not be able to be "practically accessed" during routine use. The packaging should not allow for access or exposure to the concentrated product after opening a cap or lid, or before or while connecting to the dispensing system.

Deleted: <#>Encouraged active ingredients (approved by the Massachusetts Toxics Reduction Task Force) include:¶
Hydrogen peroxide (including accelerated hydrogen peroxide) (except in mixtures with other active ingredients, such as peroxyacetic acid, that do not meet the criteria listed above)¶
Citric Acid¶
Lactic acid¶
Caprylic acid¶

- The container should contain a backflow prevention system that meets the current American Society of Sanitary Engineering (ASSE) 1055 standard.

All affected entities are encouraged, to the maximum extent practicable, to purchase hard-surface disinfectants and sanitizers that meet the following criteria:

- Third-party certified by Green Seal or EPA's Design for the Environment

Packaging

Packaging shall comply with Environmental Conservation Law section 37-0205. Packaging shall not contain inks, dyes, pigments, adhesives, stabilizers, or any other additives to which any lead, cadmium, mercury, or hexavalent chromium is intentionally added or contain incidental concentrations of lead, cadmium, mercury, or hexavalent chromium which together are greater than 100 parts per million by weight (0.01%). New York State encourages affected entities to adopt the following:

- The use of bulk packaging.
- The use of reusable packaging.
- The use of innovative packaging that reduces the weight of packaging, reduces packaging waste or utilizes packaging that is a component of the product.
- That all packaging remain the property of the supplier and not become the property of the affected state entity under any circumstance or condition. The vendor shall certify that the packaging material will be reused, recycled, or composted, and managed in compliance with applicable local, state, and federal laws.
- Packaging that maximizes recycled content and/or meets or exceeds the minimum post-consumer content level for packaging in the U.S. Environmental Protection Agency Comprehensive Procurement Guidelines.
- Packaging that is recyclable or compostable.

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Desirable Criteria ¶

Third-party verification by Green Seal or UL EcoLogo is encouraged but not required. ¶